

REMARKS

Claim 1, 4-10 and 13-15 remain in the application with claims 1, 10 and 14 being independent.

Before discussing the references cited by the examiner it is important to briefly summarize the claimed invention. An earlier PCT application - PCT/GB94/01079 also in the name of the instant inventor: Morris - is mentioned in the description of the current application and is also cited by the examiner. The method disclosed in the earlier PCT patent application is as follows:

A strip of woven fabric is fed into the nip between a rubberized conveyer belt (20) and a heated roller (26). As the path of the rubberized conveyer belt is curved around the roller, the fabric strip is longitudinally compressed forcing the strands which pass substantially across the width of the strip to draw closer together. The effect of this pressure and also the heating from the roller is to impart a semi-permanent "stretch" into the fabric. Then, in a subsequent second stage, an interlining and/or interlining combination having an inherent stretch is affixed to the fabric so that the semi-permanent "stretch" imparted to the fabric during the first stages is made substantially permanent.

The problem with such a method is that the interlining or interlining combination must itself have sufficient stretch characteristics to ensure that the woven fabric in the finished combination is brought back to its original length upon being stretched. Such

interlining combinations are available but are relatively expensive to produce and may involve relatively expensive stretch yarns, e.g., lycra yarns.

The method claimed in the current application differs from that in the earlier Morris PCT application in an important way by passing the interlining through the machine at the same time as the woven fabric, thereby introducing a compressive shrinkage into the interlining as well as the woven fabric. The two are bonded together whilst in their respective compressed states. This has the advantage that the interlining used in the present invention may be of less stretchable much cheaper material than the high elastic modulus material in the above mentioned earlier PCT application. The extra stretch ability is supplied by the compressive shrinking.

Turning now to the references cited by the examiner, the examiner considers that the most relevant of these appears to be Kobari (JP61-049838). This earlier Japanese document is not related to the field of waistbands or even in the field of imparting stretch to fabrics. This earlier Japanese document is concerned with the production of a composite material having a roughened surface and discloses a method whereby an adhesive is sprayed onto a cotton woven fabric. A non-woven synthetic fibre fabric is placed on the cotton woven fabric and is then hot pressed for bonding. The difference in shrinkage of the woven fabric and synthetic fibre fabric results in an uneven spotted pattern on the surface of the composite material.

It is important to note that the method disclosed in this earlier Japanese document relies on the shrinkage of the fibres in order to perform its intended function. In contradistinction, the method of the current application includes physically compressing the fabric strip along its length to urge the fibres across the width of the strip closer together.

In order to clarify the distinction between the current invention and the disclosure of this earlier Japanese document, claim 1 has been amended to recite the application of pressure both to the fabric and interlining along the length and bonding them together whilst in this longitudinally compressed state. The pressure in Kobari Japanese document is applied from above to squash the layers of the composite material together, i.e., the pressure in the Japanese document is perpendicular to the layers whereas it is along the layers in the subject invention..

As to obviousness when faced with the problem of providing an inexpensive waistband having stretch but also having a smooth look, a man skilled in art would be unlikely to consider Kobari. Firstly, Kobari does not relate to the field of waistbands nor even to the field of imparting stretch to fabrics. Secondly, this Japanese document discloses the production of a material having a rough or patterned surface due to the difference in shrinkage of the base fabric and synthetic fibre fabric. Materials having a rough pattern are unsuitable as waistbands in tailored garments such as suits. There is simply no disclosure in this Kobari Japanese document that by applying a longitudinal pressure to the woven fabric and interlining and bonding them together whilst in this longitudinally compressed state to obtain a smooth stretchable fabric suitable for use as a waistband. In fact, Kobari teaches away from this by teaching that composite/synthetic materials are unsuitable in this application due to the rough and patterned appearance.

The examiner also relies on US Patent 3616150 to Borge in rejecting claim 5 which recites the use of a polyurethane material as a bonding coating or film. The disclosure of Borge does not make up for the deficiencies in the Kobari Japanese document. There is no disclosure in this document of the application of longitudinal

pressure to force the yarn strands across the width of the fabric close together and simultaneous longitudinal compression of interlining.

The examiner also relies on US Patent 4819458 to Kavesh which discloses the use of tensioning of the woven fabric layer during processing. It is not denied that such tensioning is known in this field. However, it is submitted that this patent is not relevant to the claimed compression of the synthetic interlining simultaneous with the woven fabric strip. While Kavesh discloses tensioning of materials, there is simply no disclosure in this document of simultaneous longitudinal compression of woven fabric strip and synthetic interlining or any advantage that would follow from such.

The examiner also relies on Kavesh in combination with Kobari. Again, it is submitted that a man skilled in the art would not consider Kobari at all since Kobari teaches the production of a composite material having an uneven effect which is exactly the opposite of the smooth tailored effect achieved by the method of the current application. However, even if one were to consider Kobari there is simply no teaching in this document of applying a longitudinal compression to both the woven material and interlining to obtain a smooth and inexpensive composite material for use as a waistband. In fact, Kavesh appears to teach away from this by teaching that composite, cotton and synthetic layers are unsuitable for use in waistbands.

The examiner also relies on UK patent no. 2307167 to Dagg which discloses the bonding of a strip in an expanded state to a garment or part, then allowing the assembly to cool, allowing the strip to shrink compressing the garment or part. Dagg does not disclose longitudinal compression of both woven fabric and interlining. In fact, Dagg appears to disclose the inverse-expansion of the interlining and attachment to an

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unexpanded woven fabric layer. It is submitted that the disclosure of Dagg is not relevant to the current invention.

Finally, the examiner relies upon W094/28227 in the name of Morris. The drawback of the method disclosed in this earlier Morris document is that one must use a relatively expensive interlining such as a lycra type material. With the method of current application which involves the extra simultaneous interlining compression step one can use a relatively inexpensive interlining. Applicant respectfully submits that the teachings of Morris and Kobari can not be combined to produce the claimed invention. Kobari teaches that when one attempts to compress a composite material comprising cotton woven fabric and synthetic fibre one obtains a spotted uneven pattern. Accordingly, the skilled man, when starting from Morris and considering the problem of how to reduce the expensive interlining with a less expensive option, would be unlikely to consider the teachings of Kobari regarding compression of the interlining as the speckled pattern is exactly what the skilled man is attempting to avoid. There is simply no teaching in Kobari that by applying a longitudinal compression to the woven fabric and interlining one can obtain a smooth waistband which does not require an expensive interlining. The combination of Morris and Kobari teaches away from this current invention.

Finally, the examiner relies upon US Patent 4141082 to Nakazawa. This patent does not disclose the simultaneous compression of the woven fabric and interlining or any advantage that would follow therefrom. Again, the combination of this document and Kobari would teach away from the current invention since Kobari teaches that simultaneous compression results in an uneven pattern.

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It is respectfully submitted that the Application, as amended, is now in condition for allowance, which allowance is respectfully solicited.

Respectfully submitted

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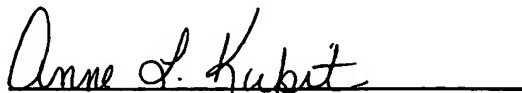
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Date

CERTIFICATE OF MAILING

I hereby certify that this Amendment and Request for Continued Examination (RCE) for Serial No. 10/031,980 is being deposited with the United States Postal Service as First Class Mail, postage prepaid, in an envelope addressed to **MAILSTOP: RCE**, Commissioner for Patents, P.O. Box 1450, Alexandria, Virginia 22313-1450 on **March 15 2005.**


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